

AverStar, Inc.

Software Interface Analysis Tool

Version Description Document

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AverStar

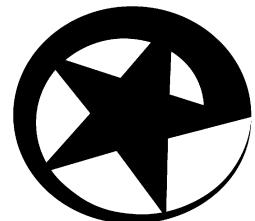


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1 INTRODUCTION

1.1 Background

This is the Version Description Document for the Software Interface Analysis Tool (SIAT). The SIAT will provide capabilities to allow V&V analysts to more easily identify external interfaces in complex systems written in the Ada language. The SIAT consists of Commercial-Off-The-Shelf products, AverStar proprietary components, and developed components. This document identifies version description information associated with all pieces of the tool.

1.2 Related Documentation

Other documents related to the SIAT include:

- SIAT Installation Guide, dated September 20, 1999.
- SIAT User's Guide, dated September 30, 1999.
- SIAT Phase 3 Final Report, dated September 30, 1999.

2 Version Description Information

2.1 COTS and AverStar Proprietary Products

The SIAT includes several COTS and AverStar proprietary products. The COTS products delineated in the following subsections are required for the SIAT system.

2.1.1 Netscape Enterprise Server

Netscape Enterprise Server 3.5.1 is currently being used for SIAT. This version or greater is needed.

2.1.2 AdaMagic™

AdaMagic is used to compile the Ada sources and to build the cross-reference information. The current version is 3.203.

2.1.2.1 Xrlister

The xrlister is a part of the AdaMagic compiler that was modified for SIAT to produce HTML listings of Ada source files. The current version of the SIAT xrlister is 2.10. The new xrlister will be incorporated into new releases of AdaMagic, and in future will not be required as a separate item.

2.1.3 Dynamic Services Manager

The Dynamic Services Manager (DSM) is a component previously developed by AverStar and used on this project. The version of the DSM in use is 1.20.

2.2 Cross-Reference Engine

The cross-reference supports interactive queries by users of SIAT. The DSM starts up one cross-reference process for each user session. While it is a separate executable from the DSM, and not linked into the HTTP server, it does expect to be called by the DSM with user information the DSM provides. The current version of the cross-reference engine is 1.48.

2.2.1 Cross-Reference Engine Source Code

File Name	Size	Date	Time	Version
buffer.c	1073	Apr 15 98	10:36	1.2
buffer.h	640	Apr 24 98	16:02	1.3
call_gid.c	5604	Aug 5 99	11:45	1.3
call_grep.c	6954	Jul 26 99	12:40	1.4
close_engine.c	715	Apr 29 98	12:19	1.2
cmd_parser.c	3683	Apr 24 98	16:05	1.1
cmd_parser.h	861	Apr 24 98	16:05	1.1
commands.h	1319	Jul 6 99	11:43	1.4
csci.c	5739	Jul 7 99	15:13	1.10
csci.h	2188	Jul 6 99	11:49	1.7

File Name	Size	Date	Time	Version
display_master_library.c	2566	May 27 98	15:25	1.3
find_GID_def.c	3013	Aug 20 99	16:17	1.4
find_construct.c	6411	May 29 98	15:13	1.8
find_related.c	13605	Sep 6 99	17:36	1.7
find_uses.c	11555	Aug 20 99	16:16	1.13
full_defs.c	3165	Jul 27 99	13:58	1.1
global_xref.c	8112	Aug 19 99	11:30	1.6
global_xref.h	1088	Jul 8 99	10:03	1.1
global_xref_hash.c	5158	Jul 8 99	10:04	1.1
global_xref_hash.h	5274	Aug 5 99	11:50	1.2
html_utils.c	6216	Jul 26 99	12:49	1.20
html_utils.h	1379	Jul 15 99	14:42	1.11
list_csci.c	2587	May 8 98	10:50	1.2
master_lib.c	1182	May 27 98	14:59	1.2
master_lib.h	769	Apr 24 98	16:26	1.1
select_csci.c	5336	Aug 20 99	16:16	1.8
show_call_graph.c	5681	Jan 13 99	10:41	1.8
show_dataflow_graph.c	7267	Sep 14 99	14:51	1.6
show_dependency_graph.c	7948	Jan 13 99	10:41	1.6
show_global_dataflow.c	17305	Sep 14 99	14:51	1.5
show_type_graph.c	5266	Jan 13 99	10:41	1.5
xref.c	8224	Sep 28 99	10:35	1.24
Makefile	4479	Sep 28 99	10:34	1.22
Xref_Config.txt	1855	May 14 98	14:18	1.1
compile.csh	1995	Oct 19 98	13:10	1.4
example_xref.cfg	333	Aug 7 98	09:48	1.1
format_gid	5414	Aug 24 99	11:21	1.6
grep_engine	8492	Feb 9 99	09:44	1.9
mk_GXREF.perl	3625	Aug 24 99	11:22	1.1
mkindex	4564	Jun 24 99	16:04	1.14

Figure 1 Cross-Reference Source Files

There are a total of 40 files requiring approximately 220 kbytes of disk space.

The cross-reference engine includes the following common files that are shared by several components (including the cross-reference engine and the DSM). There are a total of 3 shared source files using approximately 5 kbytes of disk space.

File Name	Size	Date	Time	Version
dsm_common.h	736	Apr 28 98	17:06	1.2
msg_utils.c	3774	Apr 29 98	10:47	1.3
msg_utils.h	536	Apr 28 98	16:59	1.2

Figure 2 Common Source Files

2.2.2 Cross-Reference Executable

The following table lists the executable files for the cross-reference engine. Libbrowser.so is a shared library used by the cross-reference engine. It is generated from the AdaMagic Ada browser. The libbrowser.so file included with cross-reference 1.47 was generated from checkpoint version 2.10 of the browser files.

File Name	Size	Date	Time
xref	894404	Sep 14 99	17:09
libbrowser.so	805240	Sep 14 99	17:09

Figure 3 Cross-Reference Deployment Files

There are a total of 2 files requiring approximately 1.7 megabytes of disk space.

2.3 Web Client

The overall version of the Web Client is 1.30. The individual source file versions are shown below. The source files are also the deployed files in the case of the web client. The file menubar.js is a sample Javascript menubar implementation originally from Netscape Communications Corporation, however, it has been modified to support popup menus for the SIAT application. For this reason it is included with the web client source.

2.3.1 Web Client Source Code

File Name	Size	Date	Time	Version
error.html	481	Apr 24 98	09:54	1.4
frameset.html	705	Jan 19 99	11:34	1.4
index.html	1687	Jan 12 99	16:26	1.9
login.html	1214	Jan 22 99	13:02	1.6
results.html	299	Apr 24 98	09:54	1.2
siat.html	449	Apr 24 98	12:26	1.4
start_siat.html	148	Apr 24 98	09:54	1.2
top_index.html	1123	Aug 11 98	16:47	1.3
makefile	484	Aug 5 99	11:27	1.6
common.js	5092	Jun 24 99	14:07	1.1
file.js	8460	Aug 19 99	16:06	1.13
gid.js	4320	Aug 20 99	15:19	1.12
library.js	6075	Aug 5 99	11:31	1.18
master.js	3484	Jun 24 99	14:10	1.16
menubar.js	27889	Jun 11 98	14:16	1.3
ada.css	1242	Apr 23 98	14:47	1.1

Figure 4 Web Client Source Files

Total of 16 files requiring approximately 100 kbytes of disk space.

2.4 Graph Applet

Auburn University originally developed the Java Graph applet used by SIAT. As part of the SIAT phase 2 project the original applet was converted from a normal application/applet to a JavaBean component. These converted files have been put under configuration management at AverStar, and the details are shown below.

2.4.1 Graph Applet Source Code

File Name	Size	Date	Time	Version
compile_all.csh	707	Jun 25 98	11:56	1.2
Debug.java	1874	Jun 25 98	11:30	1.1
GraphApplet.java	7166	Aug 6 98	11:48	1.6
GraphBean.java	60218	Aug 6 98	11:45	1.4
GraphBeanBeanInfo.java	13450	Jun 25 98	11:34	1.1
GraphPanel.java	56505	Jun 25 98	11:34	1.1
VGJ.java	13044	Jun 25 98	11:34	1.1
GraphAlgorithm.java	915	Jun 25 98	11:22	1.1
GraphUpdate.java	1787	Jun 25 98	11:22	1.1
BiconnectData.java	2687	Jun 25 98	11:22	1.1
BiconnectGraph.java	15151	Jun 25 98	11:22	1.1
CGDAlgorithm.java	57404	Jun 25 98	11:21	1.1
Clan.java	2926	Jun 25 98	11:21	1.1
ClanTree.java	3985	Jun 25 98	11:22	1.1
Partition.java	2493	Jun 25 98	11:22	1.1
Queue.java	830	Jun 25 98	11:21	1.1
Spring.java	16832	Jun 25 98	11:21	1.1
TreeAlgorithm.java	14833	Jun 25 98	11:21	1.1
TreeAlgorithmData.java	1069	Jun 25 98	11:21	1.1
AngleEvent.java	519	Jun 25 98	11:24	1.1
AngleListener.java	310	Jun 25 98	11:24	1.1
CanvasEvent.java	551	Jun 25 98	11:24	1.1
CanvasListener.java	362	Jun 25 98	11:24	1.1
ContainsNoGraphEvent.java	325	Jun 25 98	11:24	1.1
ContainsNoGraphListener.java	367	Jun 25 98	11:24	1.1
ContainsNoGraphListenerList.java	803	Jun 25 98	11:24	1.1
FileEmptyEvent.java	307	Jun 25 98	11:24	1.1
FileEmptyListener.java	337	Jun 25 98	11:24	1.1
FileEmptyListenerList.java	737	Jun 25 98	11:24	1.1
FileNotFoundException.java	440	Jun 25 98	11:24	1.1
FileNotFoundExceptionListener.java	352	Jun 25 98	11:24	1.1
FileNotFoundExceptionListenerList.java	770	Jun 25 98	11:24	1.1

File Name	Size	Date	Time	Version
IoExceptionEvent.java	313	Jun 25 98	11:24	1.1
IoExceptionListener.java	347	Jun 25 98	11:24	1.1
IoExceptionListenerList.java	759	Jun 25 98	11:24	1.1
MalformedURLEvent.java	316	Jun 25 98	11:24	1.1
MalformedURLListener.java	352	Jun 25 98	11:24	1.1
MalformedURLListenerList.java	770	Jun 25 98	11:24	1.1
MessageEvent.java	427	Jun 25 98	11:25	1.1
MessageListener.java	327	Jun 25 98	11:25	1.1
MessageListenerList.java	715	Jun 25 98	11:25	1.1
NodeClickEvent.java	8199	Jun 25 98	11:25	1.1
NodeClickListener.java	339	Jun 25 98	11:25	1.1
NodeClickListenerList.java	741	Jun 25 98	11:25	1.1
OffsetEvent.java	477	Jun 25 98	11:25	1.1
OffsetListener.java	271	Jun 25 98	11:25	1.1
OpenParseErrorEvent.java	322	Jun 25 98	11:25	1.1
OpenParseErrorListener.java	362	Jun 25 98	11:25	1.1
ParseErrorEvent.java	452	Jun 25 98	11:25	1.1
ParseErrorListener.java	346	Jun 25 98	11:25	1.1
ParseErrorListenerList.java	748	Jun 25 98	11:25	1.1
ScrollerEvent.java	749	Jun 25 98	11:25	1.1
ScrollerListener.java	322	Jun 25 98	11:25	1.1
ExampleAlg2.java	1369	Jun 25 98	11:26	1.1
Edge.java	14862	Jun 25 98	11:26	1.1
EdgePropertiesDialog.java	6126	Jun 25 98	11:26	1.1
GMLlexer.java	6593	Jun 25 98	11:26	1.1
GMLobject.java	13082	Jun 25 98	11:26	1.1
Graph.java	29312	Jun 25 98	11:26	1.1
Node.java	47953	Jun 25 98	11:26	1.1
NodeList.java	5582	Jun 25 98	11:26	1.1
NodePropertiesDialog.java	11927	Jun 25 98	11:26	1.1
ParseError.java	487	Jun 25 98	11:26	1.1
Set.java	12305	Jun 25 98	11:26	1.1
AlgPropDialog.java	3168	Jun 25 98	11:27	1.1
AngleControl.java	10314	Jun 25 98	11:27	1.1
AngleControlPanel.java	6930	Jun 25 98	11:27	1.1
ControlPanel.java	4345	Jun 25 98	11:27	1.1
DragFix.java	6045	Jun 25 98	11:27	1.1
FontPropDialog.java	2879	Jun 25 98	11:27	1.1
GraphCanvas.java	64697	Jun 25 98	11:27	1.1
GraphEdit.java	13336	Jun 25 98	11:27	1.1
GraphLabel.java	1708	Jun 25 98	11:27	1.1
GraphWindow.java	21994	Jun 25 98	11:27	1.1

File Name	Size	Date	Time	Version
GraphWindowBeanInfo.java	2364	Jun 25 98	11:27	1.1
GroupControl.java	2568	Jun 25 98	11:28	1.1
GroupDialog.java	1991	Jun 25 98	11:28	1.1
GroupWarningDialog.java	1998	Jun 25 98	11:28	1.1
HorizontalScrollbar.java	1013	Jun 25 98	11:28	1.1
InputDialog.java	1313	Jun 25 98	11:28	1.1
LPanel.java	9008	Jun 25 98	11:28	1.1
MessageDialog.java	975	Jun 25 98	11:28	1.1
ModeCheckbox.java	1042	Jun 25 98	11:28	1.1
OffsetCanvas.java	1687	Jun 25 98	11:28	1.1
PSdialog.java	8810	Jun 25 98	11:28	1.1
ScaleButton.java	1030	Jun 25 98	11:28	1.1
ScrolledPanel.java	12469	Jun 25 98	11:28	1.1
SizeablePanel.java	1002	Jun 25 98	11:28	1.1
TextOutDialog.java	2250	Jun 25 98	11:28	1.1
VGJOptions.java	4186	Jun 25 98	11:28	1.1
VerticalScrollbar.java	995	Jun 25 98	11:28	1.1
ViewportScroller.java	10302	Jun 25 98	11:29	1.1
DDimension.java	1139	Jun 25 98	11:29	1.1
DDimension3.java	1040	Jun 25 98	11:29	1.1
DPoint.java	1188	Jun 25 98	11:29	1.1
DPoint3.java	1876	Jun 25 98	11:29	1.1
DRect.java	560	Jun 25 98	11:29	1.1
Matrix44.java	1257	Jun 25 98	11:29	1.1

Figure 5 Graph Applet Source Files

Total of 98 files requiring approximately 700 kbytes of disk space.

2.4.2 Graph Applet Executable Code

There is a single executable produced from the Graph Applet sources.

File Name	Size	Date	Time
GraphBean.jar	198486	Aug 6 98	11:59

Figure 6 Graph Applet Deployment Files

Total of 1 file requiring 198,486 bytes of disk space.